

AMENDMENTS TO THE CLAIMS

Please cancel the nonelected claims 15-20, 26-31, 37, 40-50, 56-85, 92-94 and 115-128 without prejudice to there inclusion in a subsequent, continuing application.

1-20 (Cancelled)

21. (Previously presented) An analyzer disk assembly comprising:

an analyzer disk having a surface adapted to engage an apparatus which contains a biological sample for transfer to said analyzer disk; and

an apparatus engaged with said surface of said analyzer disk, said apparatus including:

a cassette having walls which define a cavity for containing said biological sample;

an inlet for introducing said biological sample into said cavity prior to engagement of said apparatus with said surface of said analyzer disk; and

an outlet for transferring said biological sample from said cavity to said analyzer disk when said apparatus is engaged with said surface of said disk.

22. (Previously presented) An analyzer disk according to claim 21 wherein said cassette has a mechanical rectifier which locks said cassette in engagement with said surface of said disk body.

23-50. (Cancelled)

51. (Previously Presented) An analyzer disk assembly comprising:

an analyzer disk having a surface adapted to engage an apparatus which contains a biological sample for transfer to said analyzer disk; and an apparatus engaged with said surface of said analyzer disk, said apparatus including:

a cassette having walls which define a cavity for containing said biological sample and a conduit for introducing said biological samples into said cavity prior to engagement of said apparatus with said surface of said analyzer disk and for transferring said biological sample from said cavity to said analyzer disk when said apparatus is engaged with said surface of said disk.

52. (Currently Amended) An analyzer disk assembly as set forth in ~~according to~~ claim 51 wherein said cassette has a mechanical rectifier which locks said cassette in engagement with said surface of said analyzer disk body.

53. (Currently Amended) An analyzer disk assembly as set forth in ~~according to~~ claim 51 wherein said conduit has a first end for receiving said biological sample and a second end for penetrating the wall of said cassette which defines said cavity.

54. (Currently Amended) An analyzer disk assembly as set forth in ~~according to~~ claim 51 wherein said apparatus has a reagent or washing solution for said sample.

55. (Currently Amended) An analyzer disk assembly as set forth in ~~according to~~ claim 51 wherein said apparatus has an electrical component or microelectromechanical component.

56-85. (Cancelled)

86. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 51 wherein said cassette includes a means for puncturing a membrane or septum of the cassette after said conduit is inserted into a subject.

87. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 51 wherein said cassette is mounted within an applicator.

88. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 87 wherein said applicator has one or more supports to stabilize said cassette within said applicator.

89. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 87 wherein said applicator includes means for ejecting said cassette partially or entirely from said applicator.

90. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 89 wherein said means for ejecting includes a manually operable button.

91. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 89 wherein said means for ejecting includes a means to tilt said cassette with respect to a long axis of the applicator as it is ejected.

92-94. (Cancelled)

95. (Currently Amended) An analyzer disk assembly as set forth in ~~The analyzer disk of~~ claim 51 including means to insure that said cassette is not reused once it has received a biological sample.

96. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 95 wherein said means to insure that said cassette is not reused includes means for locking said cassette to said disk so that it cannot be easily removed.

97. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 96 wherein said means for locking includes a mechanical rectifier.

98. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 97 wherein said mechanical rectifier includes corrugated surfaces.

99. (Currently Amended) An ~~The~~ analyzer disk assembly ~~of as set forth in~~ claim 51 including means for giving a visual signal when said cassette is securely engaged with said disk.

100. (Currently Amended) An ~~The~~ analyzer disk assembly ~~of as set forth in~~ claim 51 wherein said cassette and disk have markings thereon to facilitate proper relationship of said cassette relative to said disk by arranging said marking to form a unified pattern.

101. (Currently Amended) An ~~The~~ analyzer disk assembly ~~of as set forth in~~ claim 51 including means for giving a noise signal when said cassette is securely engaged with said disk.

102. (Currently Amended) An ~~The~~ analyzer disk assembly ~~of as set forth in~~ claim 51 wherein said cassette has preloaded reagents.

103. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 102 wherein said reagents are localized in separate compartments as solids or dissolved into water or a bugger.

104. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 102 wherein said reagents are stored inside a gel from which they are extracted by the sample.

105. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 102 including a battery or other electrical or microelectromechanical component that may be used for assaying the biological sample.

106. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 105 wherein said components are selected from the group light sources, such as lasers and light emitting diodes, assay elements, microprocessors, electrodes, pumps and valves.

107. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 including a disinfectant in said cassette to kill pathogenic agents and prevent microbial growth before the disposal of the analyzer disk.

108. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 wherein said cassette has at least one needle and at least one septum formed in a wall of said cassette cavity.

109. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 108 wherein said at least one septum is formed by a thinner wall area of said wall of said cassette cavity.

110. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51, wherein said cassette is made of an elastic plastic material to facilitate compression of said cassette before transfer of a sample into said cassette.

111. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 wherein said cassette is transparent or semitransparent so that the filling of said cassette with a biological sample can be visually confirmed.

112. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 wherein said cassette has a wall or partition for promoting circulation of incoming reagent solutions through a first tube, a needle, a wall or partition, a second tube and said first tube, about said wall or partition and out through said septum when the later is penetrated by said second tube.

113. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 112 wherein said disk has a third tube and a second needle and said cassette has second and third septums.

114. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 wherein said disk has a lid spaced from said surface of said disk where said cassette is to be engaged and said cassette has an incline edge provided to fit under said lid.

115-128. (Cancelled)

129. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 including wells within said cavity for receiving one or more reagents.

130. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 129 wherein the wells may have walls of a height so that they are substantially closed by the cover when a vacuum exists inside the sample cassette but open when the cassette is filled with a biological sample and the vacuum is released.

131. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 wherein the cassette cavity has passive supporting structures so that it does not collapse when a vacuum is produced inside the cassette cavity.

132. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 wherein sidewalls of the cassette have a groove that substantially surrounds the cavity of said cassette.

133. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 132 including a cassette cover having a ridge that substantially fits said groove.

134. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 wherein inner surfaces of said cassette are laminated with ammonia plasma.

135. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 wherein inner surfaces of said cassette are treated by an excess of 1, 4 phenylene diisocyanate.

136. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 135 wherein said surfaces are also treated with heparin to provide a surface covered by immobilized heparin to inhibit blood coagulation.

137. (Currently Amended) An analyzer disk assembly as set forth in ~~The assembly of~~ claim 51 wherein said cassette is provided substantially in the shape of a syringe.

138. (Currently Amended) An analyzer disk assembly as set forth in ~~The apparatus of~~ claim 137 wherein a piston is provided in the cassette to provide a vacuum with said cassette by pulling said piston while an associated conduit of said cassette engages a subject to obtain a biological sample.